



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/051,450 04/06/98 MURAMATSU

E 9319S-000059

MM92/0411

G GREGORY SCHIVLEY
HARNESS DICKEY & PIERCE
PO BOX 828
BLOOMFIELD HILLS MI 48303

EXAMINER

NSD.H

ART UNIT

PAPER NUMBER

2871

DATE MAILED:

04/11/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/051,450

Applicant(s)
Eiji Muramatsu

Examiner
Julie-Huyen L. Ngo

Group Art Unit
2871



☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-24 is/are pending in the application.

Of the above, claim(s) 5-7, 10, 11, 15-18, and 20-24 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-4, 8, 9, 12-14, and 19 is/are rejected.

☒ Claim(s) 1-4 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☒ The proposed drawing correction, filed on Apr 6, 1998 is ☒ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been
☒ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 3 and 7

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Election/Restriction

Applicant's election with traverse of Group IV in Paper No. 9 is acknowledged. The traversal is on the ground(s) that the groups of claims are sufficiently related and that an undue burden would not be place upon the Examiner by maintaining both groups of claims in one application.

However, this is not found persuasive because Applicant fails to submit any evidence or identify that the species are not patentably distinct either by showing that the species are obvious variants or admitting on the record that this is the case.

Therefore, the requirement is deemed proper and the election is considered to be an election *without* traverse.

Applicant identified that claims 1-4, 8, 9, 12-14, 19 and 21 are readable on the elected Embodiment of Group IV (figure 4). However, claim 21 does not read on the elected Species of figure 4 since there is no adhesive sheet in that embodiment. Therefore, claims 1-4, 8, 9, 12-14 and 19 are considered as set forth below.

Accordingly, claims 5-7, 10, 11, 15-18 and 20-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

DETAILED ACTION

Priority

Acknowledgment is made of Applicant's claim for priority under 35 U.S.C. 119(a)-(d) based upon an application filed in Japan on August 6, 1996. A claim for priority under 35 U.S.C. 119(a)-(d) **can not** be based on said application, since the United States application was filed, on April 6, 1998, more than twelve months thereafter. Also Applicant has not filed a certified copy of the priority application as required by 35 U.S.C. 119(b). ✓

Acknowledgment is made of applicant's claim for priority under 35 U.S.C. 365(a) of an international PCT application JP97/02543 filed on July 23, 1997. Applicant is required to file a certified copy of the international application in the application filed under 35 U.S.C. 371. ✓

Drawings

The proposed correction to figure 8, filed on April 6, 1998 (paper no. 4) is acknowledged and acceptable. ✓

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. ✓

Claim Objections

Claim 1 is objected to for reciting (lines 3-4) that the semiconductor element is *directly* jointed to at least one of the substrates. It appears from figure 4 that the semiconductor element (12) is *NOT directly* jointed to the substrate (1) *but* through an Anisotropic Conductive Film (14, ACF), bumps (13a, 13b) and connecting terminals (3a and 11). ✓

Claims 2-4 are objected as bearing the defect of the claim from which they depend.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the last line of claim 4, it is unclear which substrate Applicant is referred to as "said substrate" since there are two substrates recited earlier in claim 1. The Examiner interprets said substrate to be the first substrate, for examination purposes. ✓

In claim 8, it is unclear from the language of the claim where the polarizing plate is arranged in reference to other elements of the device. ✓ *insulated*

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

Claims 1²₄ and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawaguchi et al. (EP 0402 106 A2, IDS Paper No. 7).

Kawaguchi et al. discloses a liquid-crystal display device (col. 4, line 6-col. 5, line 52 and figures 1- 4) comprising:

(Claim 1) a pair of substrates (31, 32) which are opposite to each other through a liquid crystal (33), and a semiconductor element (36) which is joined to at least one of said substrates, characterized in that a portion other than a surface, which is joined to one of said substrates, of the surfaces of said semiconductor element is covered with a light-shielding member portion (38);

(Claim 2) a second light-shielding member (39) for shielding light being toward said semiconductor element is arranged on a surface, opposite to the surface, to which said semiconductor element is joined, of the surfaces of one of said substrates;

(Claim 4) said semiconductor element is joined to one of said substrates such that an active surface of said semiconductor element faces said one of said substrates; and

(Claim 9) said second light shielding member (39) comprises a planar sheet member having light-shielding properties (col. 4, lines 31-42) adhered to a surface of one of said substrates.

Claims 12-14 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Hirai et al. (EP 0501 413 A2, IDS Paper No. 7).

Hirai et al. disclose a liquid-crystal display device (col. 3, line 15-col. 4, line 45 and figure 3) comprising all the limitations of claims 12-14^{and 19}

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawaguchi et al. as applied to claim 1 above and as being obvious for the reason set forth below.

Kawaguchi et al. teach (col. 6, lines 33-40) that their invention can be applied to different display devices beside TFT liquid crystal display device. Therefore, it would have been obvious for one of ordinary skill in the art to apply their teaching to a device which has a plurality of pixels having no active element arranged between a pair of substrates for shielding light incidents on the semiconductor element, as taught by Kawaguchi et al.

Claims 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (APA) in view of Kawaguchi et al.

APA discloses (figure 8) a liquid-crystal display device comprises all the recited limitation of claim 8 except for the first and second light-shielding members.

(Claim 8) Kawaguchi et al. teach (col. 4, line 6-col. 5, line 52 and figures 1- 4) forming first and second light-shielding members (38, 39) on the inner and outer surfaces of substrate (32) to shield light incident on the semiconductor element (36) for avoiding the occurrence of leaks which would otherwise occur because of the irradiated light (col. 5, lines 5-33).

Therefore, it would have been obvious for one of ordinary skill in the art to form light shielding members to shield the semiconductor element (12) in the APA device as taught by Kawaguchi et al for the reasons set forth above. The second light-shielding member (39) would obviously comprises a portion located outside an effective display area of the polarizing plates (7).

(Claim 19) Kawaguchi et al. teach (figure 4 and col. 5, lines 28-33) forming a light-shielding member (38) secures to the inner surface of the first substrate (32) and overlays the semiconductor element (36) so as to shield at least one surface of said semiconductor element other then the surface fixed to said inner surface of the first substrate from non-desired light.

Therefore, it would have been obvious for one of ordinary skill in the art to form light shielding member to shield at least one surface of the semiconductor element (12) other then the surface fixed to the inner surface of the first substrate (1) from non-desired light in the APA device, as taught by Kawaguchi et al for the reasons set forth above.

Conclusion

Kubo et al (US 4,826,2970 disclose a Liquid crystal display (LCD) having an extension metal film wiring which is covered by a polyimide layer having low viscosity under 1.0 poise before curing.

Serial Number: 09/051,450
Art Unit: 2871

6

Nakanishi et al (US 5,726,726) disclose a LCD and method of producing the same.

Yamauchi et al (US 5,745,202) disclose a LCD having light interceptive members for shielding light from external driving circuits.

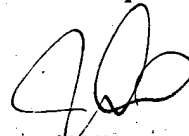
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Ngo, whose telephone number is (703) 305-3508.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, whose telephone number is (703) 308-0956.

Papers related to this application may be submitted to Art Unit 2871 by facsimile transmission. The Art Unit's fax number is (703) 308-7721.

William L. Sikes
Supervisor Patent Examiner
Group 2871



JAMES A. DUDEK
PRIMARY EXAMINER